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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,397	04/10/2001	Noam A. Ziv	PA190C1	8544

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QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER

D AGOSTA, STEPHEN M

ART UNIT	PAPER NUMBER
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2617

NOTIFICATION DATE	DELIVERY MODE
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10/29/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 09/832,397	Applicant(s) ZIV ET AL.	
	Examiner Stephen M. D'Agosta	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-41, 43-52, 54 and 55 is/are rejected.
- 7) ☒ Claim(s) 42 and 53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9-2-2009 has been entered.

1. After review, the examiner puts forth a new rejection using US Patents related to the art found in the applicant's IDS (which were foreign).

2. The patent office paralegal staff has objected to the TD since it doesn't use the correct terminology: “*..co-owned can't be used in place of commonly owned -see rule 1.321 (c)(3)*”. A new TD should be signed/executed.

3. Lastly, the concept of two devices communicating demands that either a) they both use the same protocol and hence no protocol translation is required or b) they use dissimilar protocols and a protocol translation is required. In either event, the users' protocols can easily be identified/determined and a choice made as to whether the call can be a “direct connection” or one that requires translation. The prior art put forth clearly teaches these well known (and virtually inherent) concepts.

Similarly, the examiner requests a technical explanation if the applicant “disagrees” with the examiner's assertions since it would appear to go against that which is well known to one skilled. The concept of identifying and performing the translation (if/when necessary) is a design choice since it is either a step that is inherently required (if the protocols are dissimilar) or an extra step that can be performed even if the two protocols are the same. The extra step would add little processing time and therefore it is not viewed as a novel concept to determine the protocols of the two phones.

Claims - 35 USC § 101

The examiner notes that claim 55 recites a tangible computer memory that stores the computer program which executes the method steps. Support for this tangible memory (as found in at least a microprocessor) is found in applicant's specification, page 5:

In the following description of a method and system for processing telephone calls within a digital wireless telephone system, various references are made to processes and steps that are performed via the use of "commands", "instructions", and "requests". It should be understood that such references do not describe human actions or thoughts, but are directed towards the operation,, modification and transformation of various systems including especially those systems which process electrical, electromagnetic, and magnetic signals and charges, optical signals, or a combination thereof. Fundamental to such systems is the use of various information storage devices, often referred to as "memory", which store information via the placement and organization of atomic, sub-atomic and super-atomic particles on hard disk media, tape, or within silicon, gallium arsenide, or other semiconductor based integrated circuits, and the use of various information processing devices, often referred to as "microprocessors", which alter their condition and state in response to such electrical and electromagnetic signals and charges. Memory and microprocessors that store and process light energy or particles having special optical characteristics, or a combination thereof, are also contemplated and their use is consistent with the

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 39-41, 43-52 and 54-55 rejected under 35 U.S.C. 102(e) as being anticipated by Delprat.

As per **claims 39, 42, 46, 49, 52 and 55**, Delprat teaches a method in a base station for processing a call from a first subscriber unit to a second subscriber unit (figure 1 shows wireless/wired users connecting to an infrastructure), comprising:

receiving a request from the first subscriber unit to make a call to the second subscriber unit

determining if the second subscriber unit incorporates vocoding techniques that are compatible with the first subscriber unit;

routing vocoded data packets from the first subscriber unit to the second subscriber unit without devocoding if the first and second subscriber units have compatible vocoding techniques; and

devocoding data packets from the first subscriber unit and transmitting the devocoded data packets to the second subscriber unit if the first and second subscriber units do not have compatible vocoding techniques (figures 2a thru 2f show a call between different “subscribers. Also see C3, L40 to C4, L47).

Also note that C1, L15 thru C2, L16 and the Summary of Invention (C2 to C3) discuss if a translation is required by a transcoder/vocoder and if the routing can be with or without use of the transcoder/vocoder, which reads on the claim. The examiner notes that while Delprat appears to assume that a mobile-to-mobile call is somehow

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inherently using the same vocoder/protocols, this is not the case if/when connecting to disparate devices/protocols (eg. AMPS to GSM/CDMA or wireless to wired, etc).

Delprat teaches using the transcoder/voder when connecting to dissimilar user devices/networks and hence two mobile users with different protocols/vocoders would require the translation/devoding as well). Previously, the examiner had put forth art (such as Baran, '425 and Roach '211) who both taught A/D conversion when an analog device was connecting to a digital device and vice versa).

NOTE that the claim does not specify that the two subscribers are both wireless users, hence Delprat's teachings read on the claim.

Lastly, note that Lev (not cited) teaches use of multiple vocoder modes ('779).

As per **claims 41 and 51**, Delprat teaches Claim 39, wherein the first subscriber unit and the second subscriber unit are compatible and are part of a CDMA system (Delprat teaches figure 2a that if both devices use the same wireless protocol, then there is no need to devocode. CDMA is a well known specific wireless protocol that would be used/supported).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 40 and 50 rejected under 35 U.S.C. 103(a) as being unpatentable over Delprat and further in view of Bolliger.

As per **claims 40 and 50**, Delprat teaches Claim 39/49, **but is silent on** wherein routing vocoded data packets from the first subscriber unit to the second subscriber unit comprises converting the vocoded data packets into tones.

Bolliger teaches tone insertion (C17, L45 to C18, L38).

It would have been obvious to one skilled in the art at the time of the invention to modify Delprat, such that wherein routing vocoded data packets from the first subscriber unit to the second subscriber unit comprises converting the vocoded data packets into tones, to provide means for converting from digital-to-analog (or A-to-D) when routing data across/between users who may use disparate device protocols and/or different conveyance infrastructure.

Claims 44-45, 47-48 and 54 rejected under 35 U.S.C. 103(a) as being unpatentable over Delprat and further in view of Bolliger and Baran.

As per **claims 44-45**, Delprat teaches claim 39 **but is silent on** wherein routing vocoded data packets from the first subscriber unit to the second subscriber unit without devocoding comprises transmitting a binary copy of the vocoder data packets across a PSTN line AND use of PCM (Delprat teaches that data can be transmitted to/from a wireless user to a wired/PSTN user and said data can be conveyed via either

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digital/binary or analog means – see **Baran** Abstract teaches PCM and/or **Bolliger** who teaches both analog and digital transmission). Similarly, if the analog data is converted into digital, it may use a PCM function to convert the analog signal into a digital, pulse coded modulated signal as is well known.

It would have been obvious to one skilled in the art at the time of the invention to modify Delprat, such that wherein routing vocoded data packets from the first subscriber unit to the second subscriber unit without devocoding comprises transmitting a binary copy of the vocoder data packets across a PSTN line AND use of PCM, to provide means for the vocoded/digital data to be transmitted via a digital communications conveyance (eg. T1, ATM, SoNET, etc).

As per **claims 47-48**, Delprat teaches Claim 46, wherein the call control processor is configured to receive information from a PSTN or ATM network (Delprat teaches connection(s) to the PSTN for wired-to-wireless calls and Bolliger teaches support for many different technologies, including ATM, see C45, L45-63).

As per **claim 54**, Delprat teaches claim 49, **but is silent on** wherein the means for routing vocoded data packets from the first subscriber unit to the second subscriber unit comprises means for signaling to the second wireless system that the vocoded data will be transmitted in tones.

Delprat teaches that data can be transmitted to/from a wireless user to a wired/PSTN user and said data can be conveyed via either digital/binary or analog means – see **Baran** Abstract teaches PCM and/or **Bolliger** who teaches both analog and digital transmission). Similarly, if the analog data is converted into digital, it may use a PCM function to convert the analog signal into a digital, pulse coded modulated signal as is well known.

The examiner takes Official Notice that some type of signaling means must be provided between the two networks such that they understand which type of data is being transmitted (eg. that vocoded data will be transmitted in tones).

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It would have been obvious to one skilled in the art at the time of the invention to modify Delprat, such that the means for routing vocoded data packets from the first subscriber unit to the second subscriber unit comprises means for signaling to the second wireless system that the vocoded data will be transmitted in tones, to provide means for routing data in either analog or digital format.

Allowable Subject Matter

Claims 42 ad 53 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art does not teach: "...wherein determining if the second subscriber unit incorporates vocoding techniques that are compatible with the first subscriber unit comprises generating an information request message that returns the signal processing capabilities of the second subscriber unit"

The is based on the applicant's prior patent **which has a broader scope** than these dependent claims (if/when added to their independent claim).

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 571-272-7862. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on 571-272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen M. D'Agosta/
Primary Examiner, Art Unit 2617